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10/081,423

02/22/2002

Pierre Roux

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09/02/2004

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EXAMINER

TORRES, MARCOS L

ART UNIT

PAPER NUMBER

2683

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/081,423

Applicant(s)

ROUX ET AL.

Examiner

Marcos L Torres

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.7.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. The abstract of the disclosure is objected to because its length and is a mere recitation of claim 1. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claim 7 is objected to because of the following informalities: on page 5, line 7 the claim recite "said radio network controller", since the claim disclose first and second radio network controller it is not clear which one it is refer to. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by Kondo ('057).

As to claims 11 and 13, Kondo discloses Base node for exploiting the macro diversity on an uplink between a user equipment and a radio network controller of a cellular network infrastructure, arranged to receive radio signals transmitted by the said user equipment (see abstract), comprising: first means for generating a frame of soft bits (measure of the degree of errors) on the basis of the radio signal received by the said base node and a corresponding frame of hard bits: second means for transmitting, in the cellular network infrastructure, an accuracy indicator that results from an error check on the frame of hard bits (regular bits); third means for transmitting the frame of hard bits and for transmitting the frames of soft bits to the radio network controller (see par. 0012-0036, 0042-0067).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-6 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Chambert.

As to claims 1, 6 and 9-10, Kondo discloses the method of communication on an uplink between user equipment and a first radio network controller of a cellular network infrastructure comprising an active set of base nodes which each receive radio signals transmitted by the said user equipment (see par. 0005-0006); generation, in each base node of the active set, of at least a first frame of soft bits on the basis of the received radio signal and a corresponding first frame of hard bits; transmission in the cellular

network infrastructure, from each base node of the active set, of an accuracy indicator which results from an error check on the frame of hard bits; transmission, to the first radio network controller, of the said first frame of hard bits from a base node whose accuracy indicator has a so-called good level, if at least one accuracy indicator has the said good level (see par. 0012-0036, 0061, 0067). Kondo does not specifically disclose transmission, to the first radio network controller if no accuracy indicator has the said good level, of each of the first frames of soft bits from at least two base nodes and the combination in the first radio network controller of the transmitted frames of soft bits in order to generate a second frame of hard bits. Chambert discloses transmission, to the first radio network controller if no accuracy indicator has the said good level, of each of the first frames of soft bits from at least two base nodes and the combination in the first radio network controller of the transmitted frames of soft bits in order to generate a second frame of hard bits (see col. 3, lines 7 – col. 4, line 13). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teaching for enhancing the quality of the communication data.

As to claims 2-3 and 5, Kondo discloses a method of communication on an uplink wherein: each accuracy indicator transmitted in the cellular network infrastructure for the said uplink is transmitted to the first radio network controller; the said first radio network controller (see par. 0013). Chambert discloses if it receives at least one accuracy indicator of good level, chooses that one of the base nodes whose accuracy indicator has the good level and requests the chosen base node to transmit to it the said first frame of hard bits; the said first radio network controller, if it does not receive any

accuracy indicator of good level, chooses at least two base nodes and requests them to transmit to it their frames of soft bits (see col. 2, lines 5-16). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teaching for enhancing the quality of the communication data.

As to claim 4, Kondo discloses the method of communication wherein, among the nodes whose accuracy indicator has the good level; the first radio network controller chooses the one that meets filtering criteria (see par. 0061-0063). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teaching for enhancing the quality of the communication data.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view Jung.

As to claim 12, Kondo '057 discloses the base node comprising a third means in order to transmit the frame of hard bits or the frames of soft bits depending on the received request. Kondo does not specifically disclose means for receiving a request message from the radio network controller and activating a function. Jung discloses means for receiving a request message from the radio network controller and activating a function (see col. 4, line 63 – col. 5, line 2). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for the simple reason of automation.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Chamber as applied to claims 1-6 and 9-10 above, and further in view of Longoni.

As to claim 7, Kondo '057 discloses the method of communication on an uplink wherein: at least one accuracy indicator transmitted in the cellular network infrastructure; receives an accuracy indicator with good level, transmits this accuracy indicator of good level to the first radio network controller, chooses that one of the base nodes whose accuracy indicator has the good level, transmits the accuracy indicator of good level to the first radio network controller and requests the chosen base node to send it to the said first frame of hard bits to provide for a transmission to the first radio network controller; the said radio network controller, if it does not receive an accuracy indicator of good level (see par. 0012-0036, 0061, 0067). Chamber discloses choose at least one base node and requests it to send to it its frame of soft bits to provide for a transmission to the first radio network controller (see col. 2, lines 5-16). Kondo do not specifically disclose transmitting to a second radio network controller. Longoni discloses indicator transmitted in the cellular network to a second radio network controller and managing resources with that data (see abstract, par. 0025, 0067). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teaching for enhanced reliability.

Allowable Subject Matter

12. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: the method of communication on an furthermore comprising the following

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actions executed in a base node comprising a base controller and grouping several base stations: generation, in at least one base station of the base node, of a third frame of soft bits on the basis of the radio signal received from the user equipment by the said base station for the said uplink and a third frame of hard bits; transmission in the base node, from each base station receiving the radio signal for the said uplink, of a local accuracy indicator that results from an error check on the frame of hard bits; transmission, to the base controller, of the third frame of hard bits from a base station whose local accuracy indicator has the said good level, if at least one local accuracy indicator has the said good level; transmission, to the base controller, if no local accuracy indicator has the said good level, of the frame of soft bits from at least one base station and combination in the base controller of the frames of soft bits transmitted and generation of a fourth frame of hard bits; generation, in the base controller, of the accuracy indicator to be transmitted in the cellular network infrastructure such that the said accuracy indicator has the best level between that of the local accuracy indicator and the one that results from an error check on the fourth frame of hard bits. The combination of the steps of this method have not been found or fairly suggested in the prior art search.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Hoo U.S. Patent 5794149
- b. Piirainen U.S. Patent US005944844A

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- c. Sourour U.S. Patent US006157820A
- d. Teo U.S. Publication US 20020118784A1

Any response to this Office Action should be mailed to:

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Or faxed to:

(703) 703-872-9306

For formal communication intended for entry, informal communication or draft communication; in the case of informal or draft communication, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

Crystal Park II
2121 Crystal Drive
Arlington, VA
Sixth Floor (Receptionist)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcos L Torres whose telephone number is 703-305-1478. The examiner can normally be reached on 8:00am-5:30pm alt. friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William G Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marcos L Torres
Examiner
Art Unit 2683

Mlt



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600